

# **Panasonic**

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## ***3.5" Flexible Disk Drives One Inch High Series***



**Panasonic Industrial Co.  
Memory Systems Division**

## Key Features

- Low Profile (only 1.0", 25.4 mm)
- Lightweight: Suitable for portable and desk-top equipment as well. Only 440 grams (approximately 1 pound).
- Compatible with industry standard 5.25" floppy interface.
- High performance: access time of 3 msec.
- State of the art: Surface mount technology, newly developed LSI.
- Quiet operation.
- Low power consumption.
- High reliability: Direct drive brushless digitally controlled motor.
- Customer installable options.

## Specifications

### Performance

		JU-253	JU-257
CAPACITY UNFORMATTED	Per Disk	1.0 Mbyte	2.0 Mbytes 1.0 Mbytes
	Per Track	6.2 Kbytes	12.5 Kbytes 6.2 Kbytes
Transfer Rate		250 Kbits/sec	500/250 Kbits/sec
ACCESS TIME	Track to Track	3 msec	
	Settling Time	15 msec	
	Motor Start Time	500 msec	300 msec

### Functional

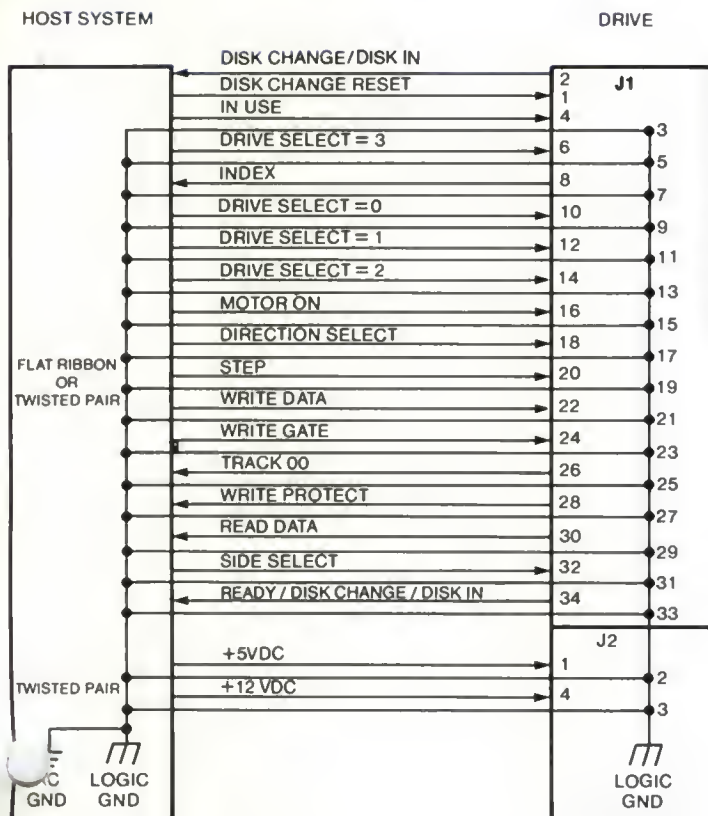
ROTATIONAL SPEED	300 RPM	300 RPM
RECORDING DENSITY	8717 BPI	17434 BPI 8717 BPI
TRACK DENSITY	135 TPI	
NUMBER OF TRACKS/SIDE	80	
NUMBER OF HEADS	2	
TEMPERATURE (Operating)	5 C to 45 C	
HUMIDITY (Operating)	20% to 80% (Non-condensing)	

## Power Requirements

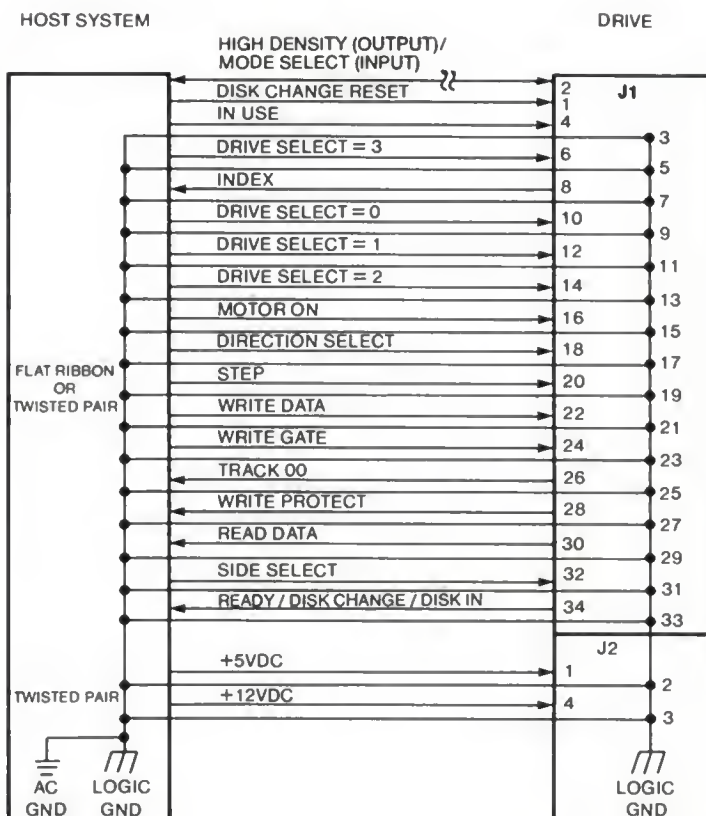
				JU-253	JU-257
DC POWER REQUIREMENTS	Voltage			12V± 10%, max ripple: 100mVp-p	
	12V	Current (Operating)	Seek	0.25A (Max) / 0.21A (Typ)	0.25A (Max) / 0.21A (Typ)
			Read	0.10A (Max) / 0.08A (Typ)	0.12A (Max) / 0.10A (Typ)
			Write	0.10A (Max) / 0.08A (Typ)	0.13A (Max) / 0.11A (Typ)
		At motor start		0.22A	0.33A (Max) / 0.30A (Typ)
	Voltage			5V±5%, max ripple: 50mVp-p	
	5V	Current (Operating)	Seek	0.31A (Max) / 0.28A (Typ)	0.19A (Max) / 0.17A (Typ)
			Read	0.29A (Max) / 0.26A (Typ)	0.18A (Max) / 0.16A (Typ)
			Write	0.33A (Max) / 0.30A (Typ)	0.18A (Max) / 0.16A (Typ)
	Power Dissipation		Seek Motor/ Start	4.9W(Max) / 3.9W (Typ)	5.4W (Max) / 4.5W (Typ)
			Read	2.9W (Max)/ 2.3W (Typ)	2.3W (Max) / 2.0W (Typ)
			Write	3.1W (Max) / 2.6W (Typ)	2.5W (Max) / 2.1W (Typ)
			Standby	70mW (Max) / 60mW (Typ)	70mW (Max) / 50mW (Typ)

# Interface Connections

JU-253

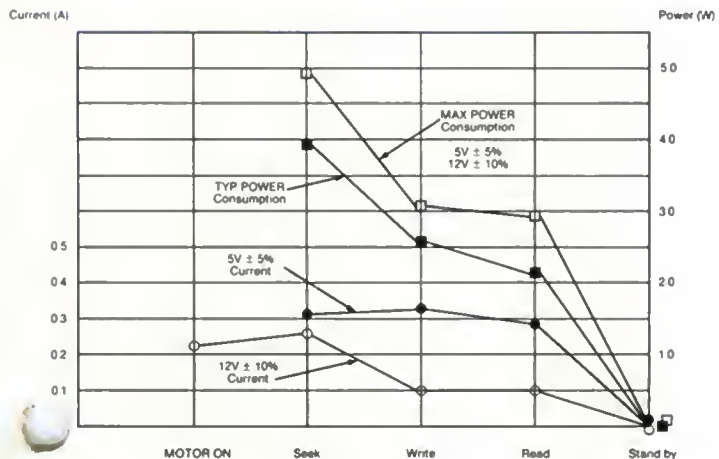


JU-257

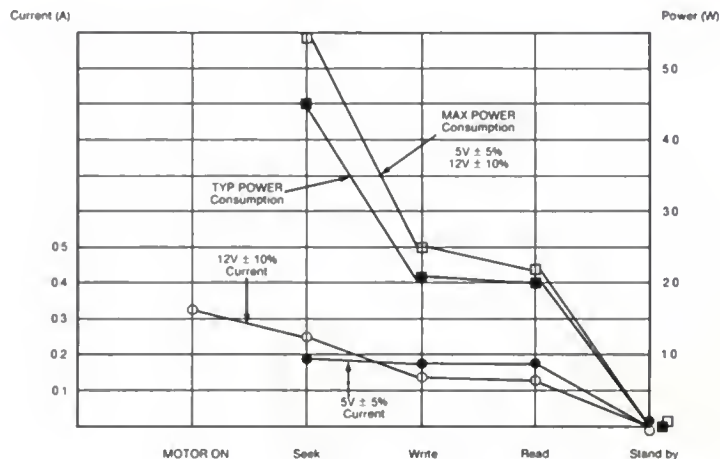


# Power Consumption

JU-253

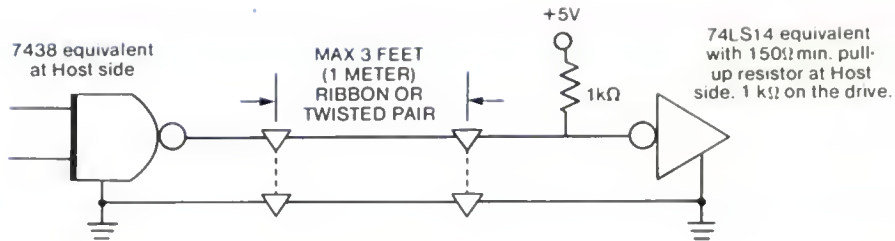


JU-257

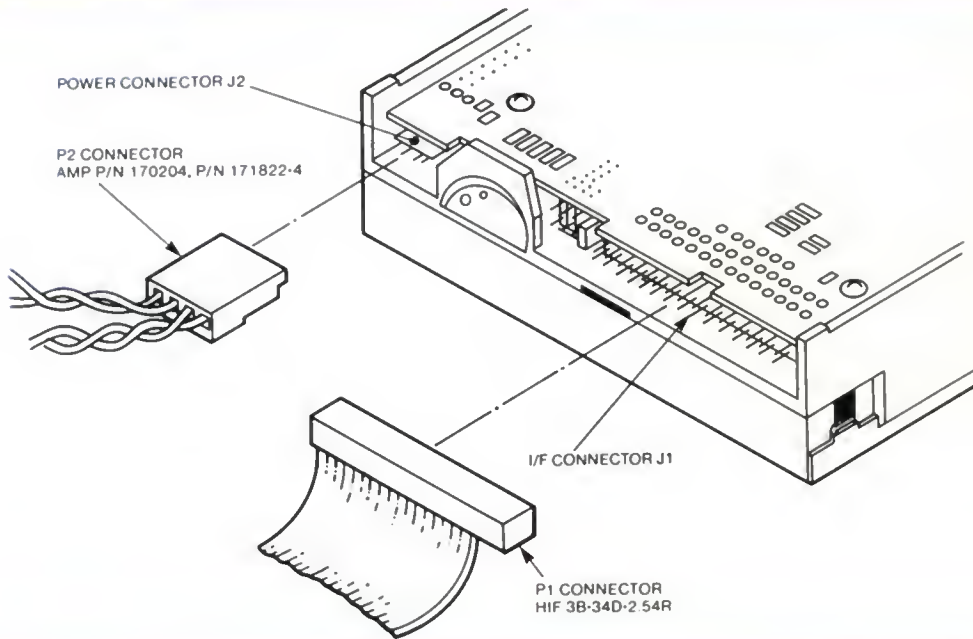




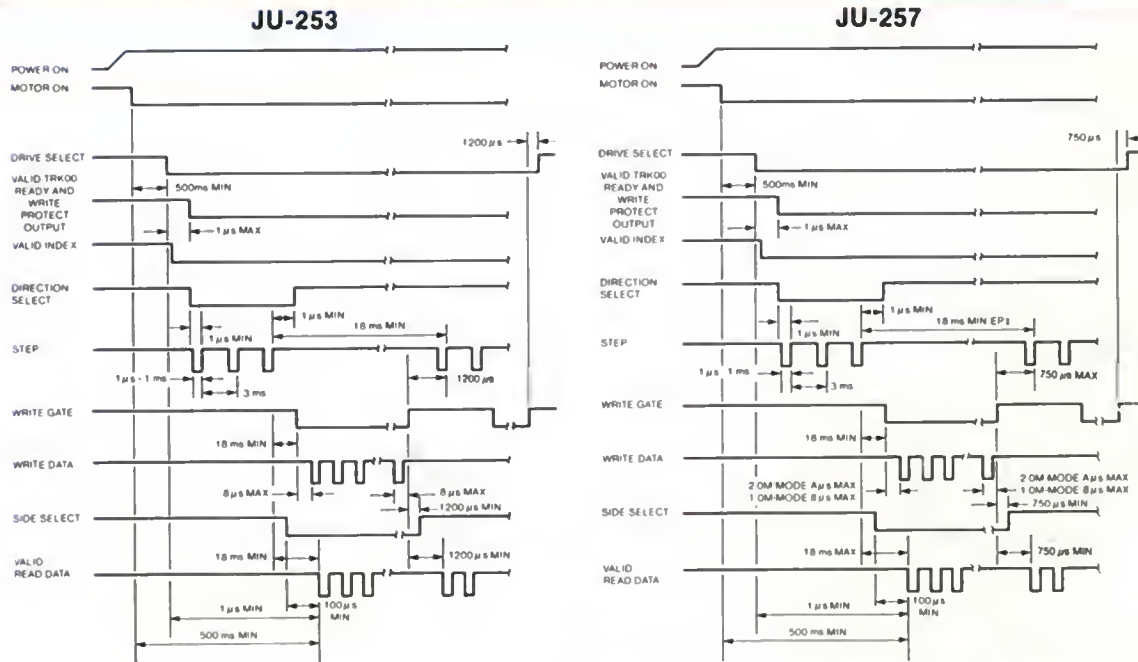
## Interface Signal Driver/Receiver



## Physical Interface



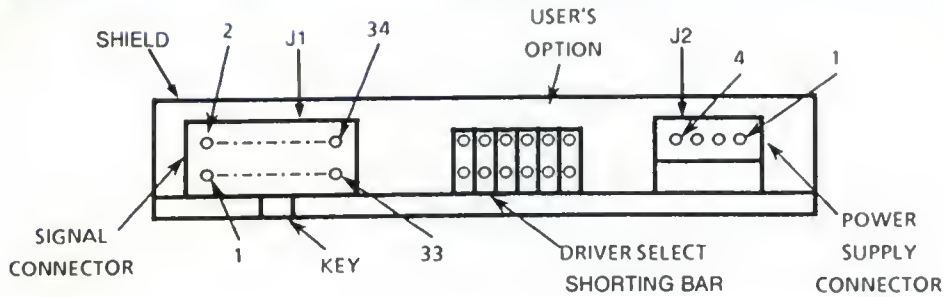
## Timing Requirements



‡ The delay from the step to read, write or direction change is 18ms minimum in normal mode.

# Pin Assignments

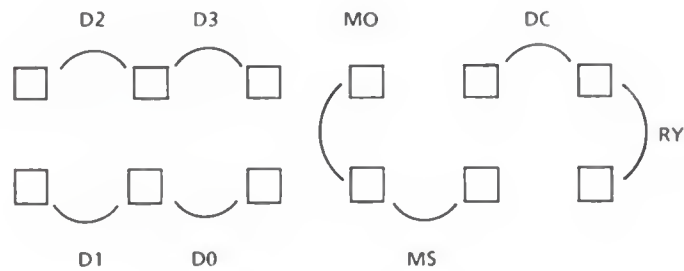
## Rear View



J1/J2 CONNECTOR

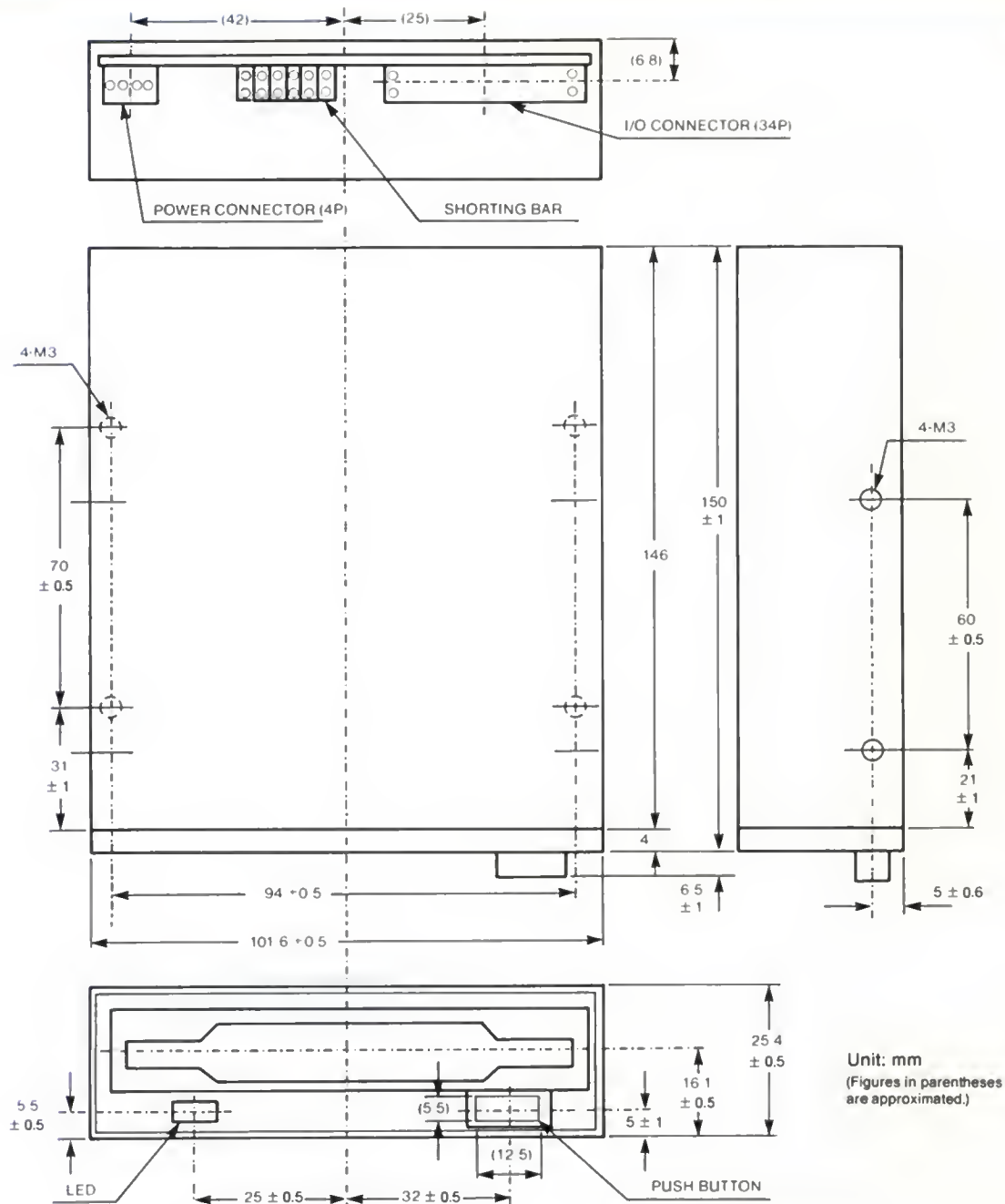
J2 CONNECTOR PIN	
1	+5 VDC
2	+5 RETURN
3	+12 RETURN
4	+12 VDC

## Shorting Plug Options



Jumper Designation	Description	Shipped from Factory
D0	DRIVE SELECT 0 input line	Open
D1	DRIVE SELECT 1 input line	Plugged
D2	DRIVE SELECT 2 input line	Open
D3	DRIVE SELECT 3 input line	Open
MO	SPINDLE MOTOR is ON and OFF with MOTOR ON SIGNAL	Plugged
MS	SPINDLE MOTOR is ON and OFF with DRIVE SELECT SIGNAL	Open
DC	Pin #34 is DISK CHANGE SIGNAL	Plugged
RY	Pin #34 is READY SIGNAL	Open
TM	TM provides termination of 1K $\Omega$ on all input lines. "DRIVE SELECT" is always terminated through a 1K $\Omega$ pull up resistor regardless of TM.	Plugged

# Mechanical Dimensions



Unit: mm  
(Figures in parentheses are approximated.)

NOTE: 1) 32mm high bezels available.  
2) 5.25" mounting kit with bezel and adapter kit is also available.

## Panasonic Industrial Co. Memory Systems Division

**Headquarters**  
1600 McCandless Drive  
Milpitas, CA 95035  
408-262-2200

**Southwest Sales Office**  
6550 Katella Avenue  
Cypress, CA 90630  
714-895-7379

**North Central Sales Office**  
425 E. Algonquin Road  
Arlington Heights, IL 60005  
312-981-7327

**South Central Sales Office**  
1825 Walnut Hill Lane  
Irving, TX 75038  
214-580-0518

**Northeast Sales Office**  
Lakeside Office Park, Door #16  
Wakefield, MA 01880  
617-246-6200

**Southeast Sales Office**  
1854 Shackelford Court, #210  
Norcross, GA 30093  
404-925-6848